DSD Final Project Scores

1. BrPred

(1) Total execution cycles of given I_mem_BrPred: 484

截圖:

```
Total cycle count: 484
--------------------------- Simulation FINISH !!---------------------------
==============================================================================

 \(^o^)/ CONGRATULATIONS!!  The simulation result is PASS!!!

==============================================================================
$finish called from file "Final_tb.v", line 229.
$finish at simulation time             1303390
          V C S   S i m u l a t i o n   R e p o r t
Time: 1303390 ps
CPU Time:      2.430 seconds;       Data structure size:   9.0Mb
Wed Jun 11 00:31:26 2025
```

(2) Total execution cycles of given I_mem_hasHazard: 2307

截圖:

```
Total cycle count: 2307
--------------------------- Simulation FINISH !!---------------------------
==============================================================================

 \(^o^)/ CONGRATULATIONS!!  The simulation result is PASS!!!

==============================================================================
$finish called from file "Final_tb.v", line 229.
$finish at simulation time             6133950
          V C S   S i m u l a t i o n   R e p o r t
Time: 6133950 ps
CPU Time:      5.600 seconds;       Data structure size:   9.0Mb
Wed Jun 11 00:29:58 2025
```

(3) Clock cycle for post-syn simulation (cycle in testbench, not cycle in sdc): 2.65(ns)

2. Compressed instructions

(1) Total Simulation Time of given I_mem_compression: 1455.01(ns)

截圖:

```
--------------------------- Simulation FINISH !!---------------------------
================================================================================

 \(^o^)/ CONGRATULATIONS!!  The simulation result is PASS!!!

================================================================================
$finish called from file "Final_tb.v", line 221.
$finish at simulation time             1455010
          V C S   S i m u l a t i o n   R e p o r t
Time: 1455010 ps
CPU Time:      2.500 seconds;       Data structure size:   9.0Mb
Wed Jun 11 00:08:40 2025
```

(2) Clock cycle for post-syn simulation (cycle in testbench, not cycle in sdc): 2.65(ns)

3. Multiplication instructions

(1) Total Simulation Time of given Mul/I_mem: 1207.63(ns)

截圖:

```
--------------------------- Simulation FINISH !!---------------------------
================================================================================

 \(^o^)/ CONGRATULATIONS!!  The simulation result is PASS!!!

================================================================================
$finish called from file "Final_tb.v", line 221.
$finish at simulation time             1207630
          V C S   S i m u l a t i o n   R e p o r t
Time: 1207630 ps
CPU Time:      2.030 seconds;       Data structure size:   9.0Mb
Wed Jun 11 00:06:18 2025
```

(2) Clock cycle for post-syn simulation (cycle in testbench, not cycle in sdc): 2.65(ns)

4. Q_sort & Conv

(1) Area: 491680.762215(um^2)

截圖:

```
Total cell area:                491680.762215
Total area:                    4938710.000130
```

(2) Total Simulation Time of Q_Sort: 270870.45(ns)

(either using compressed or uncompressed instructions)

截圖:

```
------------------------- Simulation FINISH !!-------------------------
================================================================================

 \(^o^)/ CONGRATULATIONS!!  The simulation result is PASS!!!

================================================================================
$finish called from file "Final_tb.v", line 221.
$finish at simulation time           270870450
          V C S   S i m u l a t i o n   R e p o r t
Time: 270870450 ps
CPU Time:    176.910 seconds;       Data structure size:   9.0Mb
Tue Jun 10 23:55:57 2025
```

(3) Total Simulation Time of Conv: 42419.01(ns)
(either using compressed or uncompressed instructions)
截圖:

```
------------------------- Simulation FINISH !!-------------------------
================================================================================

 \(^o^)/ CONGRATULATIONS!!  The simulation result is PASS!!!

================================================================================
$finish called from file "Final_tb.v", line 221.
$finish at simulation time            42419010
          V C S   S i m u l a t i o n   R e p o r t
Time: 42419010 ps
CPU Time:     17.720 seconds;       Data structure size:   9.0Mb
Tue Jun 10 23:57:39 2025
```

(3) Area*Total Simulation Time Q_Sort*Total Simulation Time of Conv: 5.6495e15 (um^2 * ns^2)

(4) Clock cycle for post-syn simulation (cycle in testbench, not cycle in sdc): 2.65(ns)